

Butler's Gartersnake Conservation Plan:
La Bella Vita Condominiums,
City of Pewaukee, Wisconsin
(ERIR Log #05-134)

June 24, 2007

By Gary S. Casper, Ph.D.
Great Lakes Ecological Services, LLC
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Prepared for:
Simon Group
675 N. Barker Road, Suite 300
Brookfield, WI 53045-5920



Great Lakes Ecological Services, LLC

CONSERVATION PLAN FOR

La Bella Vita Condominiums Development

Section 15, Tier 7 North, Range 19 East , City of Pewaukee, Waukesha County, Wisconsin

WDNR ERIR Log #05-134

This Conservation Plan was approved by Pewaukee Ventures, LLC (La Bella Vita); Waukesha County; and the Wisconsin Department of Natural Resources. Changes or revisions to this Plan shall be made by amendment approved by all parties or their successors.

Approved by Pewaukee Ventures, LLC

Signature

Date

Printed Name and Title

Approved by Waukesha County

Signature

Date

Printed Name and Title

Approved by the Wisconsin Department of Natural Resources

Signature

Date

Printed Name and Title

Bureau of Endangered Resources

1. Background

The La Bella Vita Condominiums development is planned for an approximately 32 acre parcel located in Section 15 of Tier 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin (Figure 1). The Butler's gartersnake, *Thamnophis butleri*, a state Threatened Species, is known from the property, and the Wisconsin Department of Natural Resources (WDNR) has required an Incidental Take Authorization, and Conservation Plan (letter from Andrew Galvin, WDNR, to Dave Meyer, June 22, 2005), for conformance with their Butler's Gartersnake Conservation Strategy (ver. 2.3, <http://www.dnr.state.wi.us/org/land/er/review/Butler/index.htm>). This Strategy details guidelines for Incidental Take Authorization for projects impacting occupied habitat patches. As part of these requirements a habitat assessment was performed for the project, with conservation recommendations (Butler's Gartersnake Habitat Assessment: La Bella Vita Condominiums, City of Pewaukee, Wisconsin. April 11, 2007).

The Butler's gartersnake is subject to WDNR regulatory jurisdiction, which currently follows guidelines from the Butler's Gartersnake Conservation Strategy. This strategy utilizes snake surveys and habitat assessments to classify the quality and extent of the available suitable snake habitat, and assigns habitat patches to a tier system, with differing regulatory requirements for addressing Incidental Take. The state Endangered Species Law (s. 29.604, Stats.) prohibits the taking of animal species listed as Endangered or Threatened anywhere that they occur in Wisconsin. The law does allow the WDNR, at its discretion, to authorize the taking of individuals of listed species that otherwise is prohibited by the law if the following conditions apply:

- a) The taking will not be the purpose of, but will be only incidental to, the carrying out of a lawful activity.
- b) The party requesting taking authorization will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking.
- c) The taking will not appreciably reduce the likelihood of the survival or recovery of the endangered species or threatened species within the state, the whole plant-animal community of which it is a part, or the habitat that is critical to its existence.
- d) The benefit to public health, safety or welfare justifies the activity.

2. Conservation Plan

2.1 Avoid and Minimize

The approved plan (Appendix A) represents the outcome of sequential engineering adjustments to avoid and minimize encroachment into existing snake habitat, as well as the 75 foot wetland setback guideline. Road, storm water, and building configurations have been adjusted, and the number of housing units proposed has been reduced, from original plans.

2.2 Mitigation for Butler's gartersnake habitat impacts

Mitigation for the habitat impact will be achieved as follows. The approximately 10.54 acres of existing suitable snake habitat loss will be mitigated by restoring approximately 0.58 acres of currently unsuitable upland habitat on the project parcel (Figure 3), and restoring approximately 7.22 acres of currently unsuitable upland habitat on adjacent Waukesha County lands (Figure 4). The remaining approximately 2.74 acres of lost habitat will be mitigated by protecting and enhancing approximately 8.81 acres of existing suitable upland habitat on Waukesha County lands (non-restoration portion of upland management areas in Figure 4), and providing for its permanent management and protection through a Conservation Easement. The combined Waukesha County and project site Preserve areas total approximately 37 acres, with approximately 35.2 acres of good quality permanently protected and managed snake habitat. The remaining portion of the Preserve is a pond. The entire Preserve will be protected and managed in perpetuity by Conservation Easements.

The following measures are part of this Conservation Plan.

- a) To avoid take, *snake exclusion fencing* will be installed by March 15 of the construction year, along the limits of disturbance (Figure 5), and maintained during the snake's active season until construction ends, per WDNR requirements (Appendix B).
- b) To avoid take, a *snake removal* will be conducted in the wetland fill area (Figure 5), since snakes are likely to occupy this area year-round, including for winter denning. Snakes will be removed by surrounding the wetland with trenched in silt fence per WDNR guidelines (Appendix B) by March 15 of the construction year, then capturing snakes from approximately April through June by cover object and funnel trap methods. This work will be performed by a qualified herpetologist, who will provide weekly reports to WDNR. The removal effort will cease when WDNR determines that a sufficiently low capture rate has been achieved. Snakes removed will be released in the adjacent undisturbed habitat outside of the construction area.
- c) *The Temporary Impact Area will be restored* to suitable Butler's gartersnake habitat as shown in Figure 2, per WDNR guidelines (Appendix C). This area is approximately 1.43 acres, and will be included in the protected Preserve Area.
- d) *Permanent protection and management* of an approximately 21.0 acre site *Preserve Area* (Figure 3, Appendix D) will be achieved through a Conservation Easement, requiring management in perpetuity as suitable Butler's gartersnake habitat per WDNR guidelines (Appendix C). The Conservation Easement will be granted to the WDNR and/or a WDNR approved land trust. Ownership of this Preserve Area may be transferred, so long as the Conservation Easement transfers with the title. The owner will be responsible for meeting the Conservation Easement requirements for habitat maintenance in perpetuity.
- e) *Restoration within the Preserve Area.* Approximately 0.58 acres of currently unsuitable upland habitat (woods and shrubs) within the project site Preserve Area will be restored to suitable snake habitat through brush clearing (areas shown in Figure 3). These canopies will be opened to provide suitable snake habitat by removing woody species (by hand cutting and stump herbicide treatment), with annual systematic removal of re-sprouting undesirable trees and shrubs for five years (by hand cutting, herbicide treatment, or winter mowing), followed

by long term management per WDNR guidelines (Appendix C). A qualified restoration ecologist will mark trees and shrubs for removal, and the restoration will have as its objective the establishment of sufficient grasses or other ground cover to support Butler's gartersnakes. Scattered trees and shrubs are acceptable in such landscapes.

- f) *Off-site Mitigation.* An additional approximately 16.04 acres of upland snake habitat on Waukesha County lands adjacent to the project to the west, as shown in Figure 4 and Appendix E, will be restored, protected, and managed for the Butler's gartersnake. These upland habitat areas are undergoing rapid degradation by the spread of invasive woody vegetation. A substantial portion of these upland areas (approximately 7.22 acres) are considered to be unsuitable as Butler's gartersnake habitat at this time, and will be restored to good quality habitat for the Butler's gartersnake. The remaining upland areas will be improved, managed, and protected. Habitat restoration will be accomplished through brush clearing, and protected and managed in perpetuity as suitable Butler's gartersnake habitat per WDNR guidelines (Appendix C). This will be accomplished through a Conservation Easement to the WDNR and/or a WDNR approved land trust for habitat management. The restorations will be in currently closed canopy upland habitats, dominated by invasive species. These canopies will be opened by removing invasive woody species through hand cutting or mechanical cutting when the ground is frozen, with stump herbicide treatment. Annual systematic removal of re-sprouting brush will continue for five years, followed by permanent management per WDNR guidelines (Appendix C). Target plant communities will be upland savannas and meadows, and open canopy wetland communities. A qualified restoration ecologist will mark trees and shrubs for removal, and the restoration will have as its objective the establishment of sufficient grasses or other ground cover to support Butler's gartersnakes. Scattered trees and shrubs are acceptable in such landscapes. Large areas of gray dogwood (*Cornus racemosa*) may require herbicide treatments in combination with winter mowing to achieve effective control. Habitat restoration activities will be approved by WDNR. The management and restoration may be coordinated with mitigation for a proposed Waukesha County trail system. The restoration work and long term habitat management will be funded through an endowment from La Bella Vita. The landowner will be responsible for meeting the Conservation Easement requirements for habitat maintenance in perpetuity.

3. Schedule

March 2007:	Install <i>snake exclusion fencing</i> , including isolation of snake removal area.
March-April 2007:	Obtain Incidental Take Authorization and final project permitting.
April - June 2007:	Perform snake removal.
April-May:	Begin construction outside of snake removal area.
by July:	Begin construction inside of snake removal area.
winter 2007-08:	Brush clearing in all upland snake habitat management areas. Long-term management of existing habitat within Preserve areas begins.
2009-2014:	Annual removal and control of re-sprouting woody vegetation in all

2015: upland snake habitat management areas.
Long-term snake habitat management of the entire 36+ acres including both on-site and off-site preserve areas.

4. Figures

Figure 1: Project location
Figure 2: Temporary Habitat Impact
Figure 3: Project Preserve Area
Figure 4: Offsite Mitigation
Figure 5: Fencing Plan

5. Appendices

Appendix A: Approved Design Plan
Appendix B: Snake Exclusion Fencing Design and Construction Requirements
Appendix C: Long Term Butler's Gartersnake Habitat Management Guidelines
Appendix D: Butler's Gartersnake Preserve Area
Appendix E: Off-site Upland Management Areas

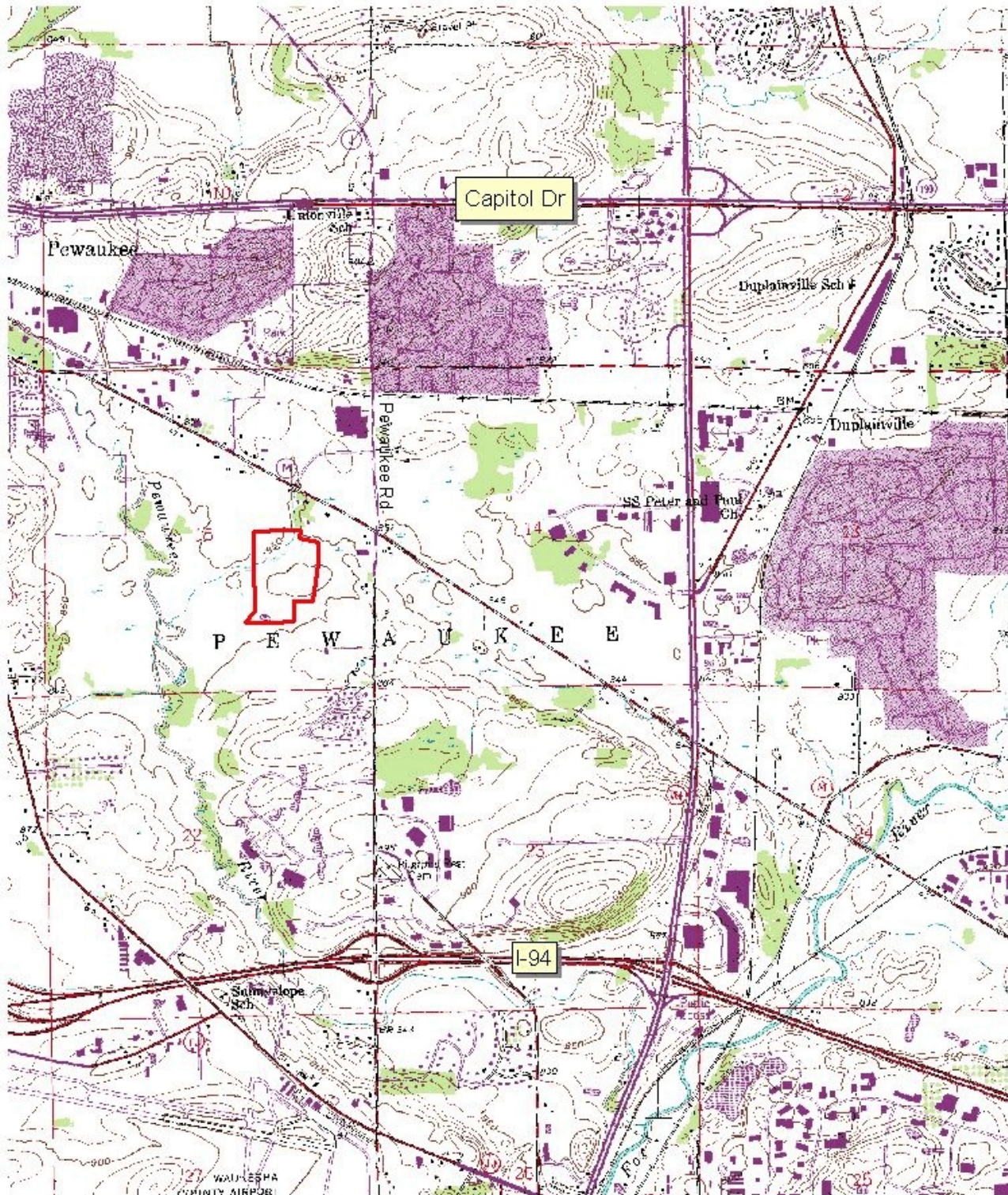


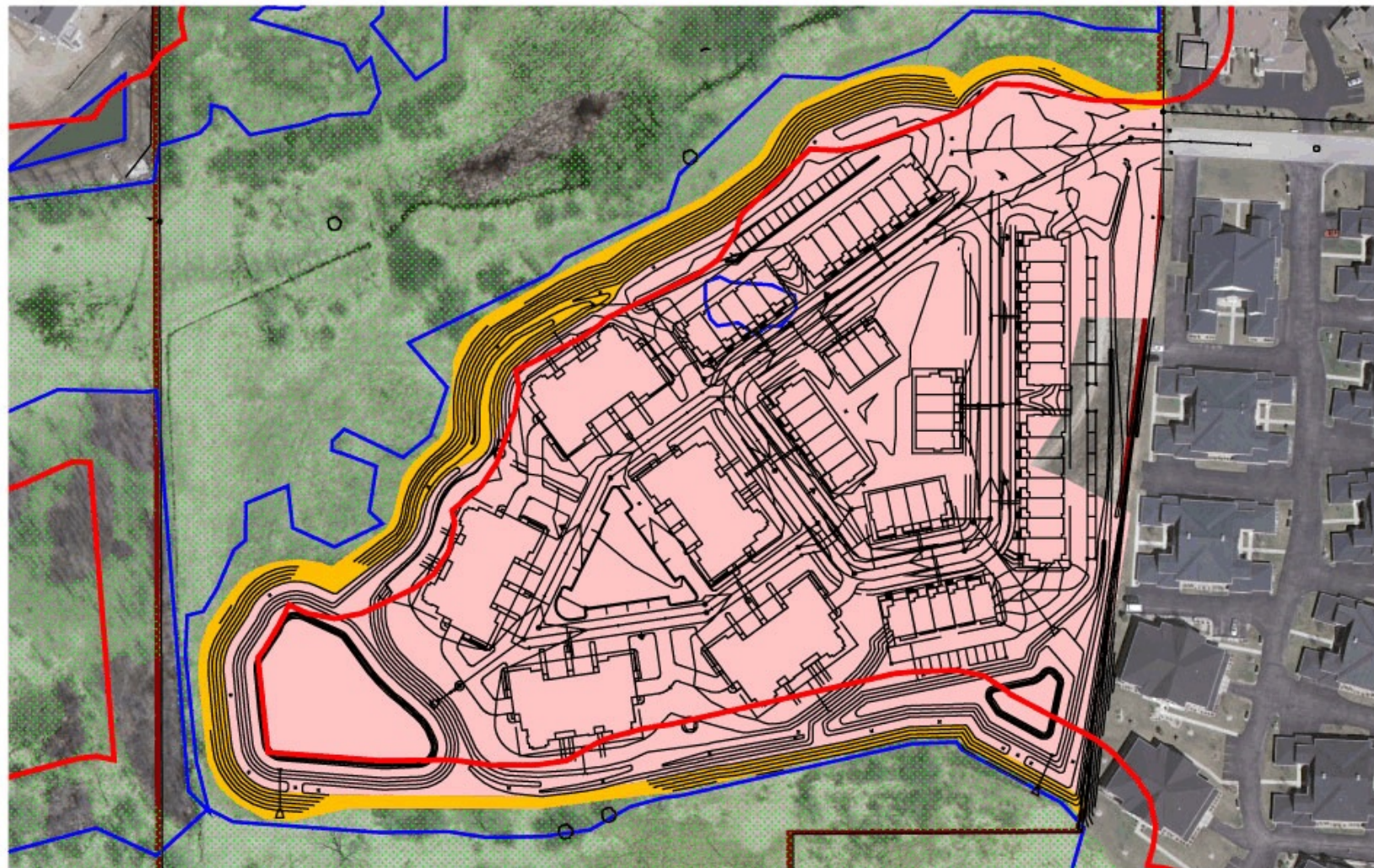
Figure 1: Project Location

 Subject Property



1000 0 1000 Feet

Casper Consulting, 21 Oct 2006



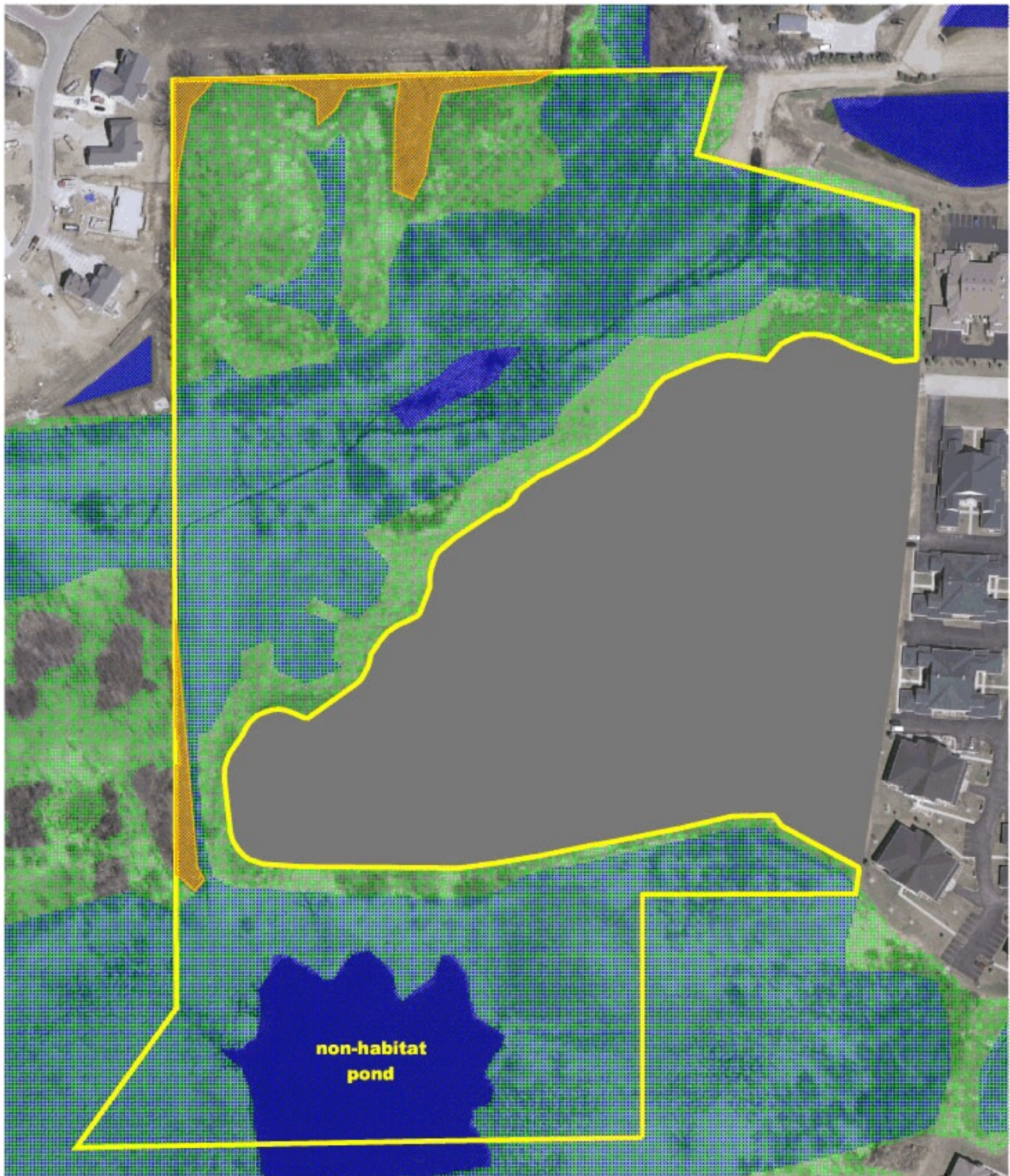
- 75 ft Offset of Wetlands (excluding fill proposal)
- △ Design Plan (7-21-06.dxf)
- Estimated Wetlands (various sources)
- Temporary Impact (approx. 1.43 acres)
- Proposed Take (approx. 10.54 acres)
- Estimated Existing Suitable Snake Habitat (>400 acres)
- Property Boundary
- 2005 aerial photography (SEWRPC)



Figure 2: Temporary Habitat Impact

100 0 100 Feet

Great Lakes Ecological Services, LLC
29 Jan 2007



- Restoration Area (approx. 0.58 acres)
- Preserve Area (approx. 21.0 acres)
- Developed Area
- Estimated Existing Suitable Snake Habitat (>400 acres)
- Estimated Wetlands (various sources)
- 2005 aerial photography (SEWRPC)

Figure 3: La Bella Vita Preserve Area



0 200 Feet

Great Lakes Ecological Services, LLC
29 Jan 2007

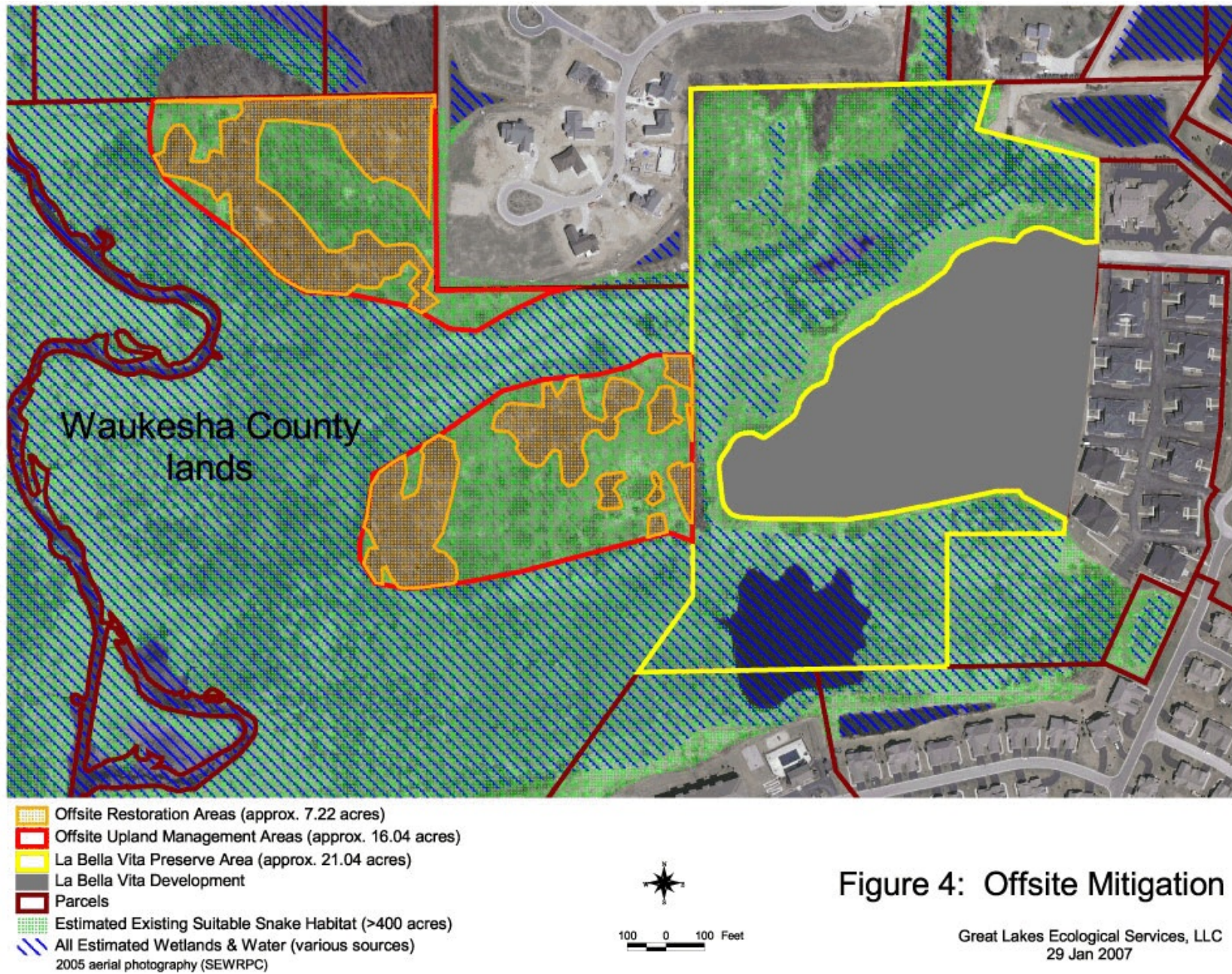


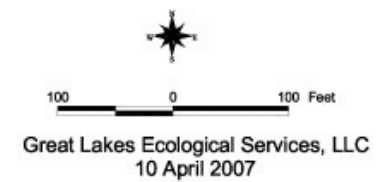
Figure 4: Offsite Mitigation

Great Lakes Ecological Services, LLC
29 Jan 2007

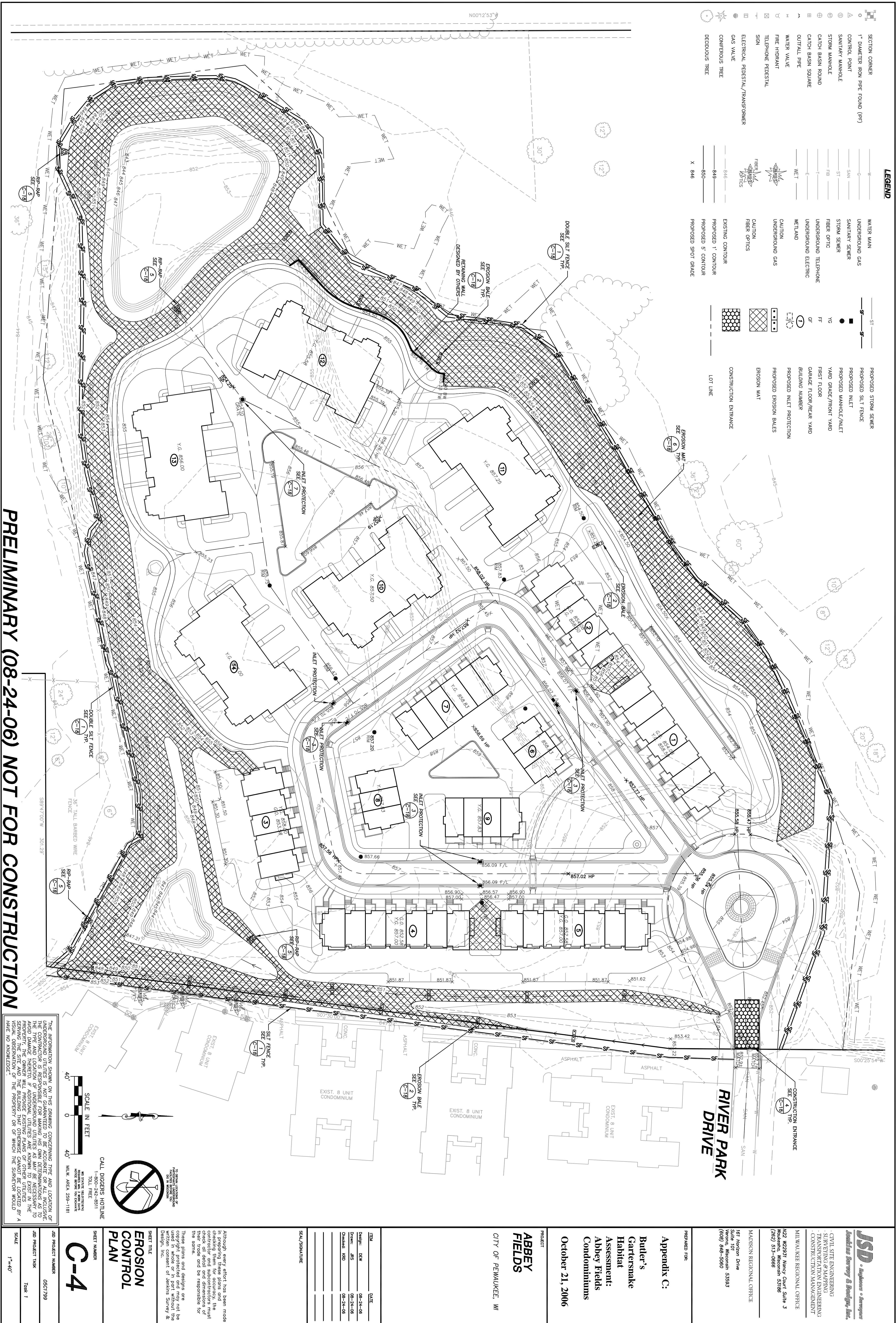


- Snake Fencing
- Exclusion (approx. 3191 ft)
 - Removal
 - Design Plan (7-21-06.dxf)
 - Estimated Wetlands (various sources)
 - Property Boundary
 - Estimated Existing Suitable Snake Habitat (>400 acres)
2005 aerial photography (SEWRPC)

Figure 5: Fencing Plan



Appendix A: Design Plan



LEGEND

SECTION CORNER

1" DIAMETER IRON PIPE FOUND (IPF)

CONTROL POINTSANITARY MANHOLECATCH BASIN ROUNDWATER MAIN

PRELIMINARY (08-24-06) NOT FOR CONSTRUCTION

CALL DIGGERS HOTLINE
1-800-542-8511
TOLL FREE
MILWAUKEE REGIONAL OFFICE
2231 North Court Suite 3
Milwaukee, Wisconsin 53186
(262) 513-0666

JSD Engineers • Surveyors
Jonathan Survey & Design, Inc.

- CIVIL SITE ENGINEERING
- SURVEYING & MAPPING
- TRANSPORTATION ENGINEERING
- CONSTRUCTION MANAGEMENT

MILWAUKEE REGIONAL OFFICE
2231 North Court Suite 3
Milwaukee, Wisconsin 53186
(262) 513-0666

MADISON REGIONAL OFFICE
161 Madison Drive
Madison, Wisconsin 53703
(608) 848-5060

Appendix C:
Butler's
Gartersnake
Habitat
Assessment:
Abbey Fields
Condominiums
October 21, 2006

PROJECT
**ABBEY
FIELDS**
CITY OF PEWAUKEE, WI

ITEM	DATE
Design	08-24-06
Drawn	08-24-06
Checked	08-24-06

SCALE
1"=40'

SHEET TITLE
**EROSION
CONTROL
PLAN**

SHEET NUMBER
C-4

JOB PROJECT NUMBER
05C1799

JSD PROJECT TASK
Task 1

Although every effort has been made in preparing these plans and the covering them on, the contractor must check all detail and dimensions of their trade and be responsible for the same.

These plans and designs are not to be used in whole or in part without the written consent of Jenkins Survey & Design, Inc.

Appendix B: Snake Exclusion Fencing Design and Construction Requirements

Snake fencing must be installed prior to the initiation of construction per the requirements of each Tier described above. Snake fencing is standard silt fencing that is installed in the following manner:

- Snake fencing must be trenched in at least 4 inches and compacted to prevent snake from passing under the fence in any areas;
- Trenched in snake fencing must be installed with the fence stakes placed on the away from the wetland side of the fence (opposite the normal requirement for sediment control);
- The fencing must separate the entire authorized construction footprint from the surrounding snake habitat up to 300 feet from the wetland boundary. The fence should be installed with loop-arounds at the ends furthest from the wetland habitat and at any access openings needed in the fencing in order to redirect the snakes away from them (see Diagrams 1 and 2);
- Fences must be inspected at least twice weekly on non-consecutive days or after a significant rain event, which is a $\frac{3}{4}$ inch downpour or 1.5 inches of rain in any 24-hour period. Repairs must be made within 24 hours.
- These fences must be maintained through out the snake's entire active period (Mar. 16 – Nov. 5) or until all construction and landscaping activities have been completed, whichever occurs first. If the project continues into more seasons, fencing must be maintained during the snake's active season until project completion;
- Additional sediment control fencing may be required as part of other Department permit conditions.

*Note. If fencing cannot be installed by March 15, please contact the Bureau of Endangered Resources, as there may be some latitude with the installation date based on weather-related conditions in spring.

Diagram 1

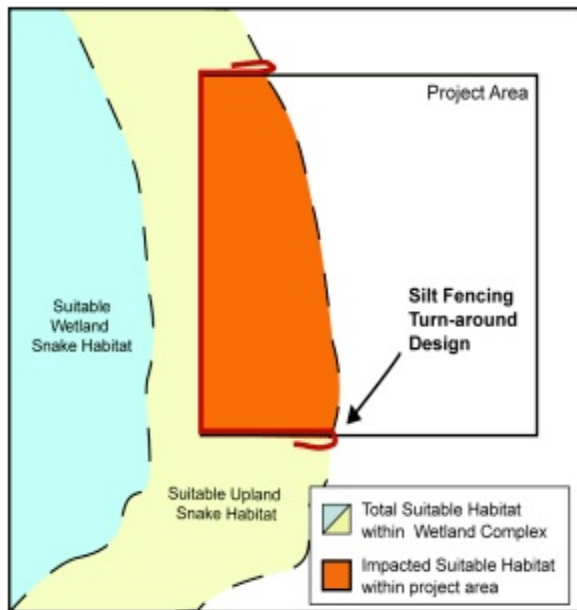


Figure 8: Snake exclusion fencing diagram for projects impacting upland habitat for the Butler's gartersnake

Diagram 2

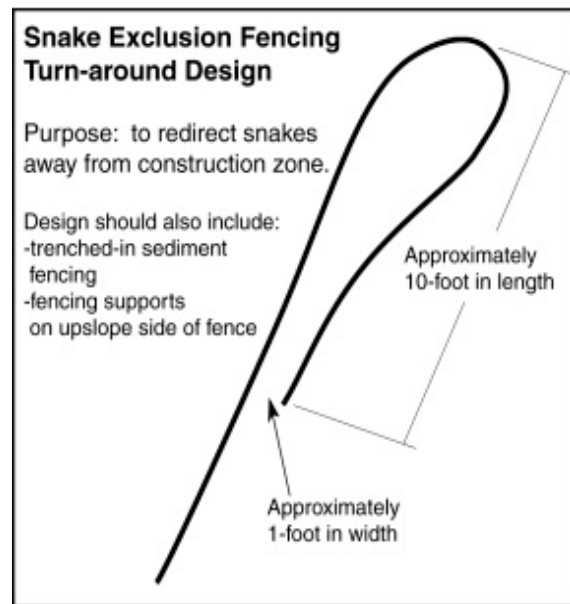


Figure 7: Turn-around design for snake exclusion fencing for the Butler's gartersnake

Appendix C:

Long-term Management Requirements for Tier 3 Upland Butler's Gartersnake Habitat

Long-term management must be conducted on all suitable upland Butler's gartersnake habitat that is protected by a conservation easement or other legal document. Long-term management must begin the year following the establishment of the conservation easement or other legal document OR the year following completion of any upland habitat restoration work required by the Department of Natural Resources (Department) through an incidental take authorization, conservation easement or permit (e.g. Chapter 30).

The goal of this long-term management is to maintain open-canopy (sun exposed) habitat, thereby preserving dense ground layer vegetation (grasses and non-woody broad leaf plants). The management goal is accomplished by mowing, burning, grazing, cutting, and/or herbiciding to prevent the encroachment of woody vegetation (brush and trees) before thinning of the ground layer vegetation occurs due to shading. **Management must be conducted annually following option A, B, or C below.** Options D and/or E may be used in addition to A, B, or C as needed.

A. Mowing/Haying:

Mow the entire protected upland habitat once during the snake's inactive period (November 6 through March 15) every year.

B. Burning:

1. Burn all upland habitat between November 6 and March 15 every year without restrictions, or
2. If you are burning to control particular ground layer vegetation in addition to controlling woody vegetation, burning can be done between March 16 and November 5 as follows: Burn only 25% of the upland snake habitat in any year. Burning using this approach requires that all upland habitat be burned once every 4 years (4 times 25%). This method may also be applied to the wetland grassland habitat on site.

C. Grazing:

Light-to-moderate grazing (<1.0 head per acre) may be used in rotations among habitat patches, with no more than 33% of the available habitat on the site grazed in any one year. Grazing must be discontinued as soon as 50% of the grasses and forbs in a grazed patch are cropped to 8 inches in height. If rotational grazing is used as a management tool, it must be done such that all available upland snake habitat is grazed once every three years.

D. Selective Brush/Tree-Cutting:

Selective cutting (e.g. chain sawing) may be done without restriction. If tree removal is done using heavy equipment, it must be done during the snake's inactive period (November 6 through March 15).

E. Herbiciding:

1. To the maximum extent possible, herbiciding should occur during the snake's inactive period (November 6- March 15). Herbicides applied at this time of year should be applied immediately (within 2-5 minutes) after brush or trees are cut using a dab applicator on top of the cut stem/trunk.
2. Where active season (March 16 - November 5) herbiciding is necessary to control exotic or noxious weeds, spot treat, preferably with a low persistence/short half-life herbicide (e.g. Round-up), using wick, sponge or hand-held spray application instead of broadcast spraying.

Appendix D: Butler's Gartersnake Preserve Area

LA BELLA VITA
BUTLER'S GARTERSNAKE PRESERVE AREA

METES & BOUNDS DESCRIPTION

All that part of Lots 13 of Certified Survey Map No. 7786, being a part of Southeast 1/4 of Section 15, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows:

Commencing at the northeast corner of the Southeast 1/4 of said Section 15; thence South 88°50'22" West along the north line of said Southeast 1/4, 1221.02 to the northeast corner of Lot 13 of said Certified Survey Map 7786 and point of beginning;

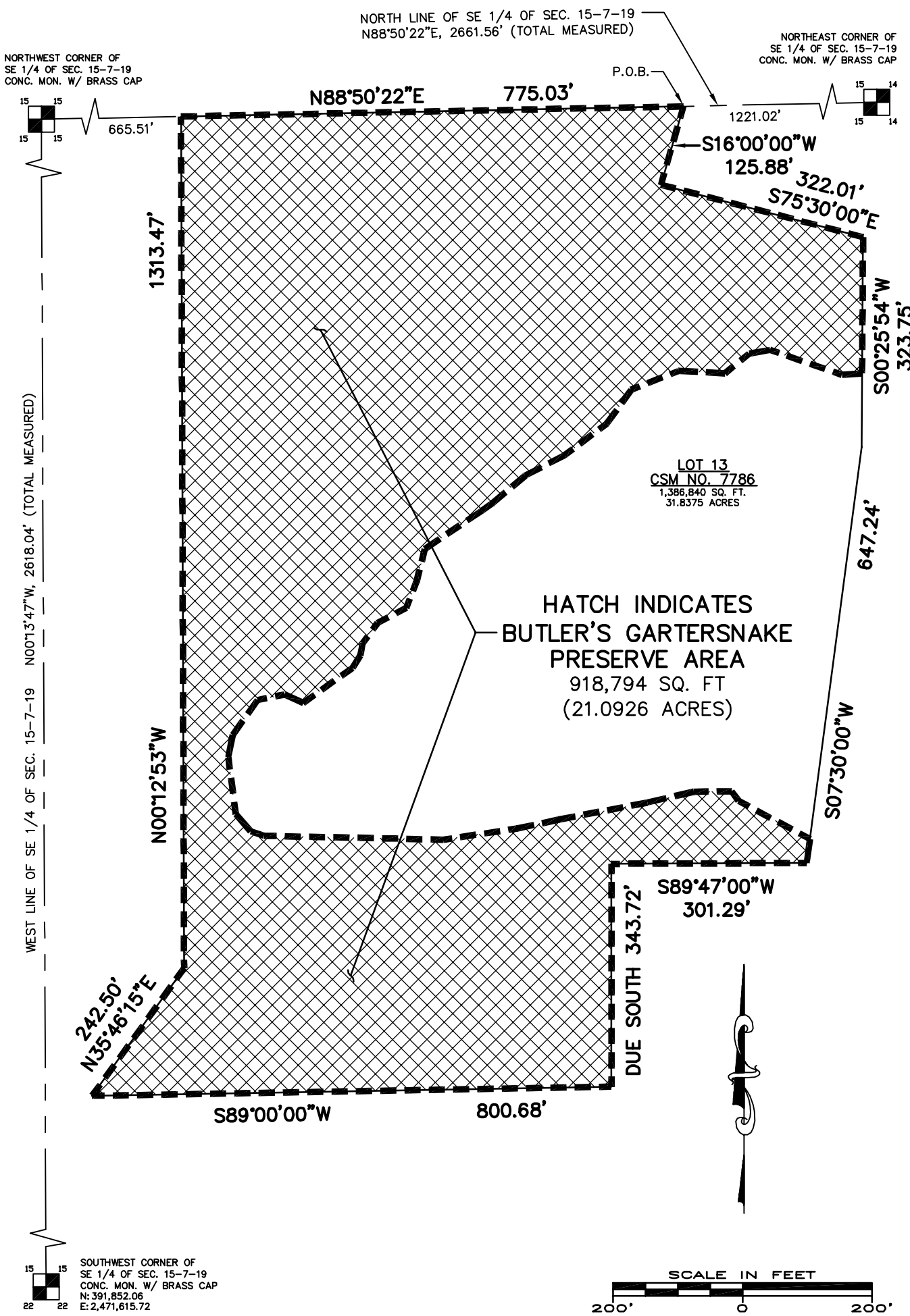
Thence the following courses along the Butler's Gartersnake Preserve Area: South 16°00'00" West, 125.88 feet along the easterly line of said Lot 13; South 75°30'00" East, 322.01 feet along said easterly line; South 00°25'54" West, 210.27 feet along said easterly line; South 86°04'54" West, 31.36 feet; North 70°51'51" West, 116.90 feet; South 80°10'51" West, 32.78 feet; South 50°45'45" West, 48.11 feet; North 87°00'48" West, 71.52 feet; South 68°16'56" West, 78.89 feet; South 35°51'46" West, 63.61 feet; South 53°02'34" West, 81.61 feet; South 62°30'26" West, 68.61 feet; South 50°03'07" West, 66.46 feet; South 54°27'44" West, 19.51 feet; South 56°07'10" West, 106.10 feet; South 14°13'21" West, 52.54 feet; South 21°18'34" West, 42.68 feet; South 62°08'36" West, 50.22 feet; South 36°35'07" West, 38.41 feet; South 11°41'22" West, 19.67 feet; South 32°00'19" West, 22.54 feet; South 54°31'29" West, 92.94 feet; North 66°11'39" West, 31.85 feet; South 78°35'03" West, 42.17 feet; South 35°25'01" West, 65.85 feet; South 11°33'36" West, 35.70 feet; South 07°30'34" East, 88.20 feet; South 40°52'55" East, 35.22 feet; South 71°33'54" East, 21.37 feet; South 88°45'55" East, 276.72 feet; North 81°28'27" East, 114.95 feet; North 77°56'06" East, 66.56 feet; North 79°03'09" East, 138.66 feet; North 77°00'19" East, 72.92 feet; North 89°00'44" East, 58.82 feet; South 35°45'14" East, 18.39 feet; South 61°50'54" East, 124.65 feet to said easterly line; South 07°30'00" West along said easterly line, 37.46 feet; South 89°47'00" West along said easterly line, 301.29 feet; Due South along said easterly line, 343.72 feet to the southeast corner of said Lot 13; South 89°00'00" West along the south line of said Lot 13, 800.68 feet to the southwest corner of said Lot 13; North 35°46'15" East along the westerly line of said Lot 13, 242.50 feet; North 00°12'53" West along said westerly line, 1313.47 feet to the northwest corner of said Lot 13 and the north line of said Southeast 1/4; North 88°50'22" East along said north line, 775.03 feet to the point of beginning.

Containing in all 918,794 square feet (21.0926 acres) of lands, more or less.

Subject to easements and restrictions of record.

J:\JSD Projects\05C1799-Simon Avondale Development\dwg\05C1799 Consvtn Exht.dwg, Exhibit, 3/9/2007 7:50:16 AM, jkonopacki

BUTLER'S GARTERSNAKE PRESERVE EXHIBIT



JSD • Engineers • Surveyors
Jealkins Survey & Design, Inc.
MILWAUKEE REGIONAL OFFICE
N22 W22931 Nancy Court Suite 3
Waukesha, Wisconsin 53186
(262) 513-0666

PROJECT
**LA BELLA VITA
LOT 13, CSM NO. 7786**
SE 1/4 SEC. 15-7-19

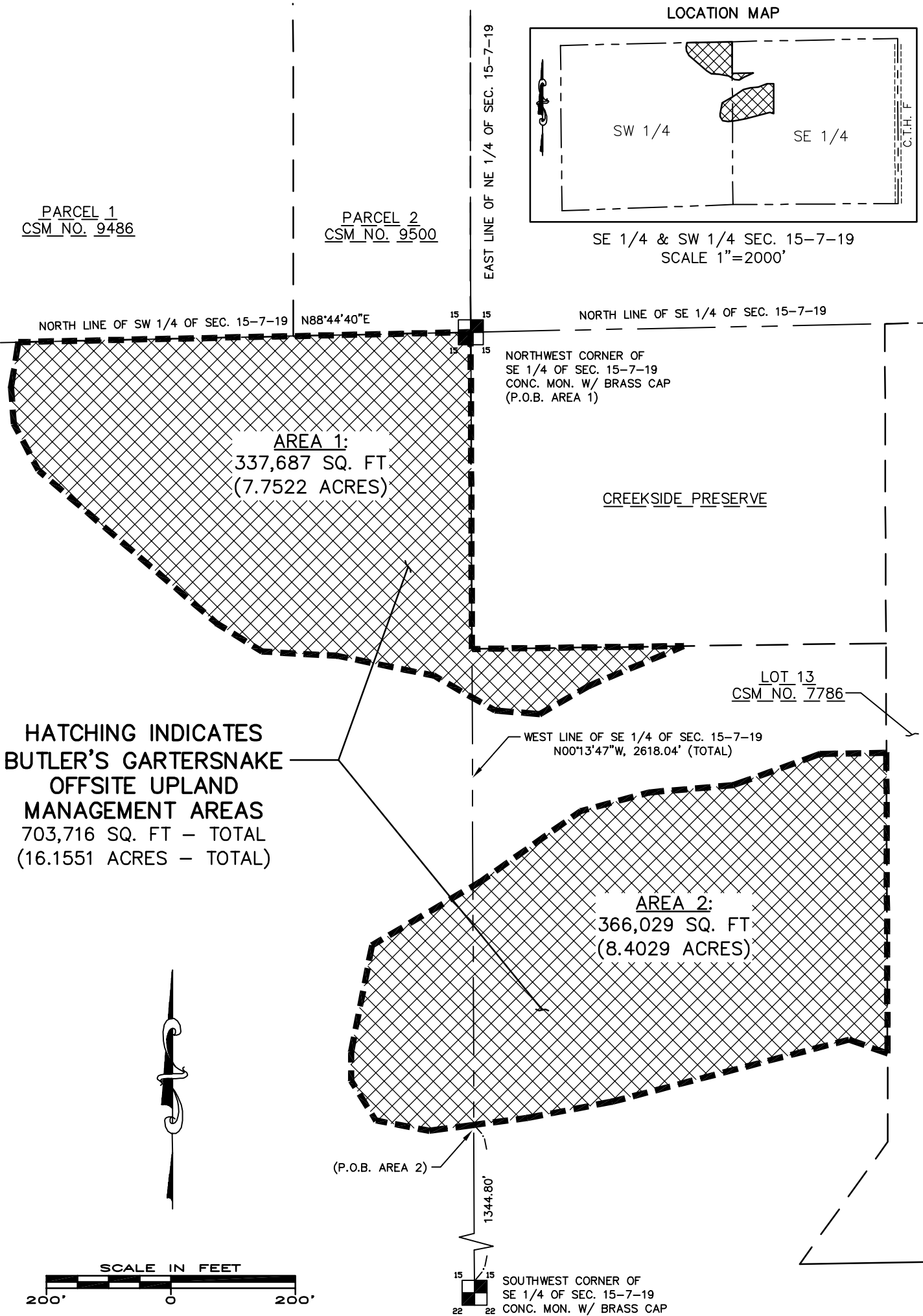
SHEET TITLE
**BUTLER'S
GARTERSNAKE
PRESERVE EXHIBIT**

JSD PROJECT NUMBER
05C1799
Drawn by: JPK Approved: KR
DATE
03-09-07

SHEET NUMBER
EX-1

Appendix E: Off-site Upland Management Areas

BUTLER'S GARTERSNAKE OFFSITE
UPLAND MANAGEMENT AREAS EXHIBIT



BUTLER'S GARTERSNAKE OFFSITE **UPLAND MANAGEMENT AREAS**

METES & BOUNDS DESCRIPTIONS

AREA 1

All that part of the Southeast 1/4 and Southwest 1/4 of Section 15, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows:

Commencing and beginning at the northwest corner of the Southeast 1/4 of said Section 15; thence the following courses along the Butler's Gartersnake Offsite Upland Management Area: South 00°13'47" East along the west line of said Southeast 1/4, 508.77 feet to the southwest corner of Creekside Preserve; North 89°13'13" East along the south line of said Creekside Preserve, 340.21 feet; South 67°13'51" West, 164.19 feet; South 60°06'04" West, 92.05 feet; North 85°14'11" West, 72.07 feet; North 60°15'18" West, 112.59 feet; North 78°24'28" West, 158.85 feet; North 86°44'33" West, 121.29 feet; North 57°59'41" West, 85.79 feet; North 49°23'55" West, 377.27 feet; North 27°57'03" West, 84.07 feet; North 04°23'55" West, 59.28 feet; North 09°07'03" East, 73.55 feet to the north line of the Southwest 1/4 of said Section 15; North 88°44'40" East along said north line, 726.92 feet to the point of beginning.

Containing in all 337,687 square feet (7.7522 acres) of lands, more or less.

Subject to easements and restrictions of record.

AREA 2

All that part of the Southeast 1/4 and Southwest 1/4 of Section 15, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows:

Commencing at the southwest corner of the Southeast 1/4 of said Section 15; thence North 00°13'47" West along the west line of said Southeast 1/4, 1344.80 feet to the point beginning;

Thence the following courses along the Butler's Gartersnake Offsite Upland Management Area: South 82°31'42" West, 72.25 feet; North 78°59'47" West, 87.39 feet; North 32°00'19" West, 75.29 feet; Due North, 45.89 feet; North 11°10'54" East, 174.89 feet; North 59°37'15" East, 201.19 feet; North 54°51'57" East, 197.60 feet; North 74°44'42" East, 113.74 feet; North 84°57'27" East, 136.19 feet; North 70°20'46" East, 148.29 feet;

North 88°55'09" East, 106.06 feet to the west line of Lot 13 of Certified Survey Map No. 7786; South 00°12'53" East along the west line of said Lot 13, 482.86 feet; North 70°27'48" West, 65.75 feet; South 75°19'49" West, 393.90 feet; South 79°10'37" West, 138.12 feet; South 82°31'42" West, 86.71 feet to the point of beginning.

Containing in all 366,029 square feet (8.4029 acres) of lands, more or less.

Subject to easements and restrictions of record.